

CLAIMS

What is claimed is:

1. An image pickup system comprising:
 - a camera; and
 - an external apparatus, the camera and the external apparatus being connected to each other via a two-way communication line, wherein
- the camera comprises:
 - camera operation means capable of setting at least a photographing condition;
- and
- camera communication means for allowing the camera to photograph based on a photographing condition set through the camera operation means or a photographing condition received from the external apparatus and transmitting image data obtained by photographing to the external apparatus, and
- the external apparatus comprises:
 - external apparatus operation means capable of setting at least the photographing condition of the camera;
 - display means capable of displaying a set state of the photographing condition;
 - external apparatus communication means for transmitting the photographing condition to the camera and receiving image data from the camera;
 - selection means for selecting between a first photographing mode in which the camera serves as a master to photograph and a second photographing mode in which the external apparatus serves as the master and controls the camera to photograph;
- and
- control means for setting the second photographing mode just after the start of camera control through the external apparatus, reading photographing information set in the camera into the external apparatus, and after that, setting the first or second photographing mode in accordance with the selection by the selection means.

2. The photographing system according to Claim 1, wherein when a picture is taken in the first photographing mode, the camera communication means transmits obtained image data to the external apparatus each time a picture is taken.

3. The photographing system according to Claim 1, wherein the external apparatus operation means is capable of setting a plurality of the photographing conditions of the camera, and

when the control means sets the second photographing mode, each time one photographing condition is set through the external apparatus operation means, the control means allows the camera to photograph based on the photographing conditions including the set photographing condition, receives obtained image data, and controls the display means to display the image data.

4. An image pickup system comprising:
an external apparatus having external apparatus operation means capable of setting at least a plurality of photographing conditions related to a camera, and display means capable of displaying respective set states of the photographing conditions; and
said camera having camera operation means capable of setting at least the photographing conditions, the camera being capable of photographing based on the photographing conditions set through the camera operation means or the photographing condition received from the external apparatus and transmitting image data obtained by photographing to the external apparatus, wherein

in photographing based on the photographing conditions set through the external apparatus operation means, each time one photographing condition is set by the external apparatus operation means, a picture is taken through the camera based on the photographing conditions including the set photographing condition, image data obtained is transmitted from the camera to the external apparatus, and the image data is displayed through the display means.

5. A camera constructed so as to be connected to an external apparatus through a two-way communication line, the camera comprising:

camera operation means capable of setting at least a photographing condition;

camera communication means for allowing the camera to photograph based on the photographing condition set by the camera operation means or the photographing condition received from the external apparatus and transmitting image data obtained by photographing to the external apparatus, wherein

just after the start of camera control through the external apparatus, when a selection between a first photographing mode, in which the camera serves as a master to photograph, and a second photographing mode, in which the external apparatus serves as a master and controls the camera to photograph, is performed under the control of the external apparatus to set the second photographing mode, photographing information set in the camera is transmitted to the external apparatus in response to a request sent from the external apparatus, and after that, a picture is taken in either the first photographing mode or the second photographing mode in accordance with the control of the external apparatus.

6. The camera according to Claim 5, wherein in the first photographing mode, the camera communication means transmits obtained image data to the external apparatus each time a picture is taken.

7. The camera according to Claim 5, wherein
the camera being capable of receiving a plurality of photographing conditions from the external apparatus, and

in the second photographing mode, each time one photographing condition is received from the external apparatus, a picture is taken based on the photographing conditions including the received photographing condition, and obtained image data is transmitted to the external apparatus.

8. A camera constructed so as to be communicably connected to an external apparatus, the camera comprising:

camera operation means capable of setting at least a photographing condition;
and

camera communication means capable of allowing the camera to photograph based on the photographing condition set through the camera operation means or the photographing condition received from the external apparatus and transmitting image data obtained by photographing to the external apparatus, wherein

in photographing based on the photographing condition received from the external apparatus, each time one photographing condition is received from the external apparatus, a picture is taken based on the received photographing condition, and image data obtained by photographing is transmitted to the external apparatus.

9. An external apparatus constructed so as to be connected to a camera through a two-way communication line, the external apparatus comprising:

external apparatus operation means capable of setting at least a photographing condition of the camera;

display means capable of displaying a set state of the photographing condition;

external apparatus communication means for transmitting the photographing condition and receiving image data from the camera;

selection means for selecting between a first photographing mode in which the camera serves as a master to photograph and a second photographing mode in which the external apparatus serves as the master and controls the camera to photograph;
and

control means for setting the second photographing mode just after the start of camera control through the external apparatus, reading photographing information set in the camera, and after that, setting the first or second photographing mode in accordance with the selection by the selection means.

10. The external apparatus according to Claim 9, wherein in the first photographing mode, the external apparatus communication means receives image data obtained by photographing from the camera each time a picture is taken.

11. The external apparatus according to Claim 9, wherein the external apparatus operation means is capable of setting a plurality of the photographing conditions of the camera, and

when the control means sets the second photographing mode, each time one photographing condition is set through the external apparatus operation means, the control means allows the camera to photograph based on the photographing conditions including the set photographing condition, receives image data obtained by photographing, and controls the display means to display the image data.

12. The external apparatus according to Claim 9, further comprising: storage means for storing image data received through the external apparatus communication means.

13. An external apparatus constructed so as to be communicably connected to a camera, the apparatus comprising:

external apparatus operation means capable of setting at least a plurality of photographing conditions related to the camera; and

display means capable of displaying respective set states of the photographing conditions, wherein

when a picture is taken through the camera based on the photographing conditions set through the external apparatus operation means, each time one photographing condition is set by the external apparatus operation means, the picture is taken through the camera based on the photographing conditions including the set

photographing condition, image data obtained by photographing is received, and the received image data is displayed by the display means.

14. An image pickup program for enabling a computer to control a camera in order to photograph, the computer being connected to the camera through a two-way communication line, the program comprising:

- an external apparatus operation procedure for setting at least photographing condition of the camera;

- a display procedure for displaying a set state of the photographing condition;

- an external apparatus communication procedure for transmitting the photographing condition to the camera and receiving image data from the camera;

- a selection procedure for selecting between a first photographing mode in which the camera serves as a master to photograph and a second photographing mode in which the computer serves as the master and controls the camera to photograph; and

- a control procedure for setting the second photographing mode just after the start of camera control through the computer, reading photographing information set in the camera, and after that, setting the first or second photographing mode in accordance with the selection in the selecting procedure.

15. An image pickup program for enabling a computer to control a camera in order to photograph, the computer being communicably connected to the camera, the program comprising:

- an external apparatus operation procedure for setting at least a plurality of photographing conditions related to the camera;

- a display procedure for displaying respective set states of the photographing conditions; and

- a procedure for receiving image data obtained by photographing through the camera in order to display the image data in the display procedure, wherein

when a picture is taken through the camera based on the photographing conditions set in the external apparatus operation procedure, each time one photographing condition is set in the external apparatus operation procedure, the picture is taken to obtain the image data through the camera based on the photographing conditions including the set photographing condition.

16. A recording medium in which a computer-readable image pickup program is recorded, the image pickup program being used to enable a computer to control a camera in order to photograph, the computer being connected to the camera through a two-way communication line, the program comprising:

- an external apparatus operation procedure for setting at least photographing condition of the camera;

- a display procedure for displaying a set state of the photographing condition;

- an external apparatus communication procedure for transmitting the photographing conditions to the camera and receiving image data from the camera;

- a selection procedure for selecting between a first photographing mode in which the camera serves as a master to photograph and a second photographing mode in which the computer serves as the master and controls the camera to photograph; and

- a control procedure for setting the second photographing mode just after the start of camera control through the computer, reading photographing information set in the camera, and after that, setting the first or second photographing mode in accordance with the selection in the selection procedure.

17. A recording medium in which a computer-readable image pickup program is recorded, the image pickup program being used to allow a computer to control a camera in order to photograph, the computer being communicably connected to the camera, the image pickup program comprising:

- an external apparatus operation procedure for setting at least a plurality of photographing conditions related to the camera;

a display procedure for displaying respective set states of the photographing conditions; and

a procedure for receiving image data obtained by photographing through the camera to display the image data in the display procedure, wherein

when a picture is taken through the camera based on the photographing conditions set in the external apparatus operation procedure, each time one photographing condition is set in the external apparatus operation procedure, the picture is taken to obtain the image data through the camera based on the photographing conditions including the set photographing condition.

18. An image pickup method for photographing using a camera and an external apparatus, the camera being connected to the external apparatus through a two-way communication line, the method comprising:

setting a second photographing mode in which the external apparatus serves as a master and controls the camera to photograph just after the start of camera control through the external apparatus;

transmitting photographing information, set in the camera, from the camera to the external apparatus;

displaying at least a photographing condition received in the photographing information of the camera through display means of the external apparatus;

setting the photographing condition of the camera through camera operation means of the camera or external apparatus operation means of the external apparatus;

selectively setting a first photographing mode in which the camera serves as a master to photograph or the second photographing mode;

taking a picture in the selected photographing mode to obtain an image, based on the set photographing condition;

transmitting the obtained image from the camera to the external apparatus; and

displaying the image received by said external apparatus through the display means of said external apparatus.

19. The image pickup method according to Claim 18, further comprising:
- transmitting a set photographing condition to the camera each time a photographing condition is set when the photographing condition is set by the external apparatus operation means in the step of setting the photographing condition of the camera through the camera operation means of the camera or the external apparatus operation means of the external apparatus;
 - photographing through the camera based on the transmitted photographing condition;
 - transmitting image data obtained by photographing from the camera to the external apparatus; and
 - previewing the image data received by said external apparatus through a display means of said external apparatus.